

REMARKS

Claim 1 is pending and under consideration. With this amendment, Claim 1 has been canceled, without prejudice or disclaimer, and new Claims 80-151 have been added. Thus, after entry of this Amendment, Claims 80-151 are pending and under consideration.

The Amendments of the Claims

Claim 1 has been canceled and Claims 80-151 have been newly added. New Claims 80-151 are directed to certain energy transfer dyes (Claims 80-86), reagents such as nucleoside/tides and oligonucleotides labeled with the energy transfer dyes (Claims 87-106), methods of forming and/or analyzing nucleic acids employing nucleotides and/or primers labeled with the energy transfer dyes (Claims 107-115 and 116-135) and kits for sequencing nucleic acids including reagents labeled with the energy transfer dyes (Claims 136-151). In all of the energy transfer dyes, labeled reagents, methods and kits, the donor dye of the energy transfer dye is a xanthene dye and the acceptor dye is a 4,7-dichlororhodamine. In addition, the donor and acceptor dyes are linked to one another in a "tail-to-tail" fashion (i.e., at the 5- or 6-ring positions of their respective C9-phenyl rings). Such dyes are taught in the specification at, for example, page 47, lines 10-12 (the second class of dyes in which the acceptor is a 4,7-dichlororhodamine). Additional teaching may be found, for example, at page 56, line 11 through page 57, line 16 and at Table 5. Reagents labeled with the energy transfer dyes are taught, for example, at page 61, line 1 through page 69, line 25; methods employing the energy transfer dyes and labeled reagents are taught, for example, at page 69, line 27 through page 77, line 12; and kits including the dyes and/or labeled reagents are taught, for example, at page 77, line 13 through page 78, line 6.

Each new claim is supported by the specification and claims as originally filed, and therefore does not constitute new matter. Exemplary sections of the specification where specific support may be found are detailed in the chart, below:

New Claim	Support (page:lines)
80	47:10-12; 56:11-57:16 in connection with 42:1-14; 42:24-27 and Table 5
81	57:7-16; 42:15-23
82	42:3-5

New Claim	Support (page:lines)
83	42:5-9
84	20:14-27 in connection with 21:10-20
85	23:23-26; 49:8-10
86	Original claim 27; 47:14-49:10; 56:11-57:17 in connection with 41:17-30; 21:10-22:15; 17:19-19:12; 20:14-19
87	61:2-17
88	61:10-15
89	61:18-21; 61:28-62:9
90	64:3-12 in connection with 23:23-26
91	64:13-19
92	64:17-65:5
93	same as Claim 81
94	same as Claim 82
95	same as Claim 83
96	same as Claim 86
97, 98	62:2-29
99, 100, 101	62:12-16
102	61:18-21
103	68:26-27
104	69:3-7
105	68:20-21
106	same as Claim 86
107-112	66:3-9; 66:16-25; 72:25-73:25 in connection with sections supporting Claims 81-83 and 85-86
113	73:26-74:7
114	74:24-75:12
115	70:16-21
116-118	same as Claims 107-115
119	73:23-25; 74:24-75:5
120-124	same as Claims 81-83 and 85-86

New Claim	Support (page:lines)
125	74:24-75:5; 75:13-19
126-130	same as Claims 81-83 and 85-86
131	same as Claim 125 in connection with 77:17-19 and 77:26-27
132	75:6-9
133	75:6-10
134	75:13-19
135	75:10-12
136	13:17-19 in connection with 74:24-75:5
137-141	same as Claims 81-83 and 85-86
142	77:17-19
143	77:20-26
144-148	same as Claims 81-83 and 85-86
149	77:26-27
150, 151	13:17-19; 77:14-15

Statutory Double-Patenting

Claim 1 stands rejected under 35 U.S.C. § 101 as being drawn to the same invention as Claim 1 of U.S. Patent No. 5,800,996. The rejection is moot in light of the cancellation of Claim 1.

Non-Statutory Double-Patenting

Claim 1 also stands rejected under the judicially-created doctrine of obviousness-type double patenting as being unpatentable over Claim 1 of U.S. Patent No. 5,945,526 (the “526 patent”). The rejection is moot as applied to Claim 1 owing to its cancellation and traversed as applied to new Claim 80.

As evidenced by MPEP § 804(II)(B)(1), a double-patenting rejection of the obviousness-type is analogous to an obviousness rejection under 35 U.S.C. § 103(a), *except that* the underlying patent is *not* prior art and its disclosure may not be used in formulating the rejection. Only the *claim* of the patent may be used.

Claim 1 of the '526 patent recites a generic energy transfer dye comprising a donor dye, an acceptor dye and a linker of a specified formula. Claim 1 does not specify any particular types of donor and acceptor dyes, or require that the donor and acceptor dyes be connected to one another in any particular orientation. In fact, the various dependent claims make clear that the donor and acceptor dyes may be selected from amongst numerous different dyes and that they can be connected to one another in a variety of different orientations.

In contrast, new Claim 80 recites an energy transfer dye comprising a xanthene donor dye, a 4,7-dichlororhodamine acceptor dye and a linker linking the 5- or 6-ring position of the donor dye to the 5- or 6-ring position of the acceptor dye.

It is well-settled law that the disclosure of a broad genus does not render *prima facie* obvious each and every species encompassed therein. See, e.g., *In re Baird*, 29 USPQ 2d 1550 (Fed. Cir. 1994), *In re Bell*, 26 USPQ 2d 1529 (Fed. Cir. 1993). Applicants submit the generic energy transfer dye recited in Claim 1 of the '526 patent fails to render the energy transfer dye of Claim 80 *prima facie* obvious. In particular, Claim 1 of the '526 patent fails to render *prima facie* obvious an energy transfer dye comprising a *xanthene* donor dye, a *4,7-dichlororhodamine* acceptor dye and a linker linking *the 5- or 6-ring position of the donor dye to the 5- or 6-ring position of the acceptor dye*. Accordingly, the rejection should be withdrawn.

Applicants note that the '526 patent does claim energy transfer dyes having the orientation recited in new Claim 80 (see Claim 25 of the '526 patent). However, under *Bell* and *Baird*, this Claim 25 likewise fails to render new Claim 80, which recites an energy transfer dye comprising a *4,7-dichlororhodamine* acceptor dye *prima facie* obvious.

Information Disclosure Statement

At paragraph 3 of the Office Action, the Examiner indicates that three references on the PTO-1449 were not considered because they were not available in the file or parent files. Copies of these references are being included with a new Information Disclosure Statement citing the same which is being submitted concurrently with this Amendment.

Conclusion

Claims 80-151 satisfy all of the criteria for patentability and are believed to be in condition for allowance. An early indication of the same is therefore kindly requested.

No fees beyond those submitted herewith are believed to be due in connection with this Amendment. However, the Commissioner is authorized to charge any additional required fees, or credit any overpayment, to Dorsey & Whitney LLP Deposit Account No. 50-2319 (Order No. A-72076-4/AMP).

Respectfully submitted,

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Date: June 2, 2003

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